<u>**Listing of Claims**</u>

Claims 1- 8 (canceled)

Claim 9 (currently amended) ~~The~~ <u>A</u> method ~~of claim 8 wherein~~ <u>for dynamic assignment
and validation of IP addresses in a wireless IP network, comprising the following steps:</u>

<u>broadcasting IP messages from a mobile terminal to the wireless network;</u>

<u>determining whether the IP messages are one of assignment request messages and
validation request messages based on IP headers of the received IP messages;</u>

<u>determining origination of the received request messages based on the IP address
messages of the received request messages;</u>

<u>selectively forwarding the received request messages to a server without
transmitting the request messages to other mobile terminals which are actively
communicating with base stations and to base stations which reside on a wired IP
network based on the origination of the request messages; and</u>

<u>triggering an IP address validation when the mobile terminal enters a new subset,</u>
<u>said</u> triggering step ~~comprises~~ <u>comprising</u> ~~the following step~~ initiating a mobility daemon
when the mobile terminal enters the news subnet.

Claim 10 (original) The method of claim 9, wherein said step of initiating the mobility
daemon comprises the following steps:

resetting an IP address of the mobile terminal to a null address,

broadcasting a validation request message from the mobile terminal to an IP
address server of the new subnet;

determining whether a former IP address of the mobile terminal is valid in the IP
address of the new subnet;

transmitting a validation message for the former IP address at the mobile terminal;
and

setting the IP address of the mobile terminal from the null address to the former
IP address if the former IP address is valid.

Claim 11 (original)   The method of claim 10, further comprising the following steps:

requesting a new IP address which is valid for the new subnet;

assigning a new, valid IP address to the mobile terminal based on the request for the new, valid IP address;

transmitting the new, valid IP address to the mobile terminal; and

setting the IP address of the mobile terminal to the new, valid IP address.

Claim 12 (currently amended) The method of claim 11, wherein said step of requesting a new IP address comprises ~~the following step:~~ broadcasting an assignment request message to an IP address server in the IP network.

Claims 13-20 (canceled)

Claim 21 (currently amended) ~~The~~ A method ~~of claim 20 wherein~~ for dynamic assignment and validation of IP address in a wireless network, comprising the following steps:

broadcasting IP messages from a mobile terminal to a wireless interface;

determining whether header information in one of the assignment request messages and validation request messages in received IP messages is a local broadcast IP address;

determining whether the IP messages were received on one of the wireless interface and a wired interface if the header information indicates a broadcast IP address;

if the header information indicates a broadcast IP address, then discarding the received IP messages, else broadcasting the received IP messages to the wired interface; and

triggering an IP address validation when the mobile terminal enters a new subnet, said triggering step ~~comprises~~ comprising ~~the following step~~ initiating a mobility daemon when the mobile terminal enters the new subnet.

Claim 22 (original) The method of claim 21, wherein said step of initiating the mobility daemon comprises the following steps:

resetting an IP address of the mobile terminal to a null address;

broadcasting a validation request message from the mobile terminal to an IP address server of the new subnet;

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       determining whether a former IP address of the mobile terminal is valid in the IP address server of the new subnet;

       transmitting a validation message for the former IP address to the mobile terminal;

       receiving the validation message for the former IP address at the mobile terminal;

       determining whether the former IP address is valid based on the validation message of the former IP address received by the mobile terminal; and

       setting the IP address of the mobile terminal from the null address to the former IP address if the former IP address is valid.

Claim 23 (original) The method of claim 22, further comprising the following steps:

       requesting a new IP address which is valid for the new subnet;

       assigning a new, valid IP address to the mobile terminal based on the request for the new, valid IP address;

       transmitting the new, valid IP address to the mobile terminal; and

       setting the IP address of the mobile terminal to the new, valid IP address.

Claim 24 (currently amended) The method of claim 23, wherein said step of requesting a new IP address comprises the ~~following~~ step of broadcasting an assignment request message to an address server in the IP network.

Claim 25 (original) A method for dynamic assignment and validation of IP addresses in a wireless IP network, comprising the following steps:

       adding a selected mobile terminal address to an address mapping table for a broadcast IP address when one of an assignment request and a validation request from the mobile terminal is received at a base station;

       broadcasting at least one of assignment information and validation information from IP address servers to those mobile terminals included in the address mapping table; and

       removing a selected mobile terminal address from the address mapping table for the broadcast IP address once the selected mobile terminal has received a valid address from an IP address server.

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Claim 26 (original) The method of claim 25, wherein said adding step comprises the following steps:

creating a broadcast IP address and a corresponding mapping table for transmitting assignment and validation information from IP address servers only to mobile terminals which request the assignment and validation information and for tracking mobile terminals which request assignment and validation information;

awaiting receipt of one of an assignment and a verification request from the mobile terminal;

extracting a link layer address from one of the assignment request and verification request upon receipt of a request message which identifies the mobile terminal which requested the message;

adding the link layer address to the address mapping table for the corresponding broadcast IP address; and

returning to the step of awaiting receipt of request messages.

Claim 27 (currently amended) The method of claim 25, further comprising the following steps:

identifying the mobile terminal which has requested one of the assignment information and verification information;

awaiting receipt of information via a wired interface;

comparing a source IP address of the received information to an IP address of the IP address server and comparing a destination address of the received information to a broadcast address to determine whether the received information is a broadcast message from a server; and

if the received information is a broadcast message from a server, then transmitting the broadcast message, else forwarding the received information to a next appropriate network host based on the destination address of the received information .

Claim 28 (original) The method of claim 25, further comprising the following steps:

awaiting receipt of information from a network host whose destination is a unicast IP address of the mobile terminal;

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determining whether receipt of the information is a first instance of the unicast address addressed to the mobile terminal;

if receipt of the information is a first instance of the unicast IP address addressed to the mobile terminal, then removing the mobile terminal from the address mapping table;

mapping a link layer address of the mobile terminal to an IP address of the mobile terminal;

deleting a previously stored link layer address of the mobile terminal from the address mapping table;

forwarding the received information to the mobile terminal based on the unicast IP address of the mobile terminal; and

awaiting receipt of additional information from the network host. .

Claim 29 (original) The method of claim 28, further comprising the following steps:

forwarding the received information to the mobile terminal if receipt of the information is not the first instance of the unicast IP address addressed to the mobile terminal; and

awaiting receipt of additional information from the mobile host.

Claim 30 (original) The method of claim 25, wherein the IP address server is a DHCP server.

Claim 31 (original) The method of claim 30, wherein the DHCP server broadcasts one of *DHCPOFFER* messages, *DHCPACK* messages, and *DCHPNACK* messages in response to one of *DHCPDISCOVER* and *DHCPREQUEST* messages, respectively.

Claim 32 (currently amended) The method of claim 25, further comprising the ~~following~~ step of triggering an IP address validation when the mobile terminal enters a new subnet.

Claim 33 (currently amended) The method of claim 32, wherein said triggering step comprises the ~~following~~ step of initiating a mobility daemon when the mobile terminal ~~enter~~ enters the new subnet.

Claim 34 (original) The method of claim 33, wherein said step of initiating the mobility daemon comprises the following steps:

resetting an IP address of the mobile terminal to a null address;

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broadcasting a validation request message from the mobile terminal to an IP address server of the new subnet;

determining whether a former IP address of the mobile terminal is valid in the IP address server of the new subnet;

transmitting a validation message for the former IP address to the mobile terminal;

receiving the validation message for the former IP address at the mobile terminal;

determining whether the former IP address is valid based on the validation message for the former IP address received by the mobile terminal; and

setting the IP address of the mobile terminal from the null address to the former IP address if the former IP address is valid.

Claim 35 (original) The method of claim 33, further comprising the following steps:

requesting a new IP address which is valid for the new subnet;

assigning a new, valid IP address to the mobile terminal based on the request for the new, valid IP address;

transmitting the new, valid IP address to the mobile terminal; and

setting the IP address of the mobile terminal to the new, valid IP address.

Claim 36 (currently amended) The method of claim 35, wherein said step of requesting a new IP address comprises the ~~following~~ step of broadcasting an assignment request message to an IP address server in the IP network.

Claim 37 (new) The method of claim 9 further comprising resetting the mobile terminal's address to a null address whenever the mobile terminal enters a new subnet, said resetting being temporary until the mobile terminal validates a former IP address from a former subnet or is assigned a new and valid IP address for the new subnet.

Claim 38 (new) The method of claim 37 further comprising the mobility daemon triggering the mobile terminal to broadcast a validation request to the new subnet to cause the new subnet to affirm or deny the validity of the mobile terminal's IP address from the former subnet.

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Claim 39 (new) The method of claim 37 further comprising, after the mobile terminal has secured a valid IP address, setting the mobile terminal's IP address from the null address to the valid IP address for the subnet.

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